

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-4. (Cancelled)

Claim 5. (Previously Presented) A linear engaging headless fastener system for securing an object to a machine component, the fastener system comprising:

a body member having an outer surface positioned about a central axis, said body member having a first end including a cavity, said cavity having an engaging surface, said engaging surface tapering inwardly from about said first end and extending toward a second end, said second end defining a clamping surface adapted to engage the object;

an expander member having a first end, a second end, and an outer surface positioned about a central axis, said outer surface tapering outwardly from said first end and extending toward said second end, said first end being insertable into said body member cavity;

a gripping surface defining an aperture in the machine component; and

means projecting radially from said outer surface of said body member outer surface for engagement with said inner surface of said aperture for locking said body member in a predetermined position,

wherein said outer surface of said expander member is constructed and arranged for coaxial alignment and engagement with respect to said engaging surface of said body member, said expander member being linearly traversable with respect to said engaging surface of said body member between a first release position and a second engaged position, wherein said engaged position results in said tapered surfaces circumferentially expanding said body member, and wherein said release position results in circumferential contraction of said body member,

wherein said body member outer surface and said gripping surface are configured and positionable relative to each other to form a compressive contact with each other to linearly shift relative to each other under the compressive contact to cause an increased compression between the clamping surface and the object when said body member is circumferentially expanded from an unloaded state,

wherein said radially projecting means includes at least one outwardly and circumferentially extending rib, each said rib including a first ramp surface to facilitate coaxially aligned linear movement of said body member in relation to said inner gripping surface of said aperture to provide a secondary clamping force upon engagement of said expander member,

wherein said at least one circumferentially extending rib includes a second ramp surface to facilitate coaxially aligned linear insertion of said body member into said inner gripping surface of said aperture, and

wherein said radially projecting means are helical threads.

Claim 6. (Cancelled)

Claim 7. (Previously Presented) A linear engaging headless fastener system for securing an object to a machine component, the fastener system comprising:

a body member having an outer surface positioned about a central axis, said body member having a first end including a cavity, said cavity having an engaging surface, said engaging surface tapering inwardly from about said first end and extending toward a second end, said second end defining a clamping surface adapted to engage the object;

an expander member having a first end, a second end, and an outer surface positioned about a central axis, said outer surface tapering outwardly from said first end and extending toward said second end, said first end being insertable into said body member cavity; and

a gripping surface defining an aperture in the machine component,

wherein said outer surface of said expander member is constructed and arranged for coaxial alignment and engagement with respect to said engaging surface of said body

member, said expander member being linearly traversable with respect to said engaging surface of said body member between a first release position and a second engaged position, wherein said engaged position results in said tapered surfaces circumferentially expanding said body member, and wherein said release position results in circumferential contraction of said body member,

wherein said body member outer surface and said gripping surface are configured and positionable relative to each other to form a compressive contact with each other to linearly shift relative to each other under the compressive contact to cause an increased compression between the clamping surface and the object when said body member is circumferentially expanded from an unloaded state, wherein said first end of said body member includes at least one driving surface, said at least one driving surface constructed and arranged to cooperate with a driving tool for providing rotational force to said body member.

Claim 8. (Cancelled)

Claim 9. (Previously Presented) A linear engaging headless fastener system for securing an object to a machine component, the fastener system comprising;

a body member having an outer surface positioned about a central axis, said body member having a first end including a cavity, said cavity having an engaging surface, said

engaging surface tapering inwardly from about said first end and extending toward a second end, said second end defining a clamping surface adapted to engage the object;

an expander member having a first end, a second end, and an outer surface positioned about a central axis, said outer surface tapering outwardly from said first end and extending toward said second end, said first end being insertable into said body member cavity; and

a gripping surface defining an aperture in the machine component,

wherein said outer surface of said expander member is constructed and arranged for coaxial alignment and engagement with respect to said engaging surface of said body member, said expander member being linearly traversable with respect to said engaging surface of said body member between a first release position and a second engaged position, wherein said engaged position results in said tapered surfaces circumferentially expanding said body member, and wherein said release position results in circumferential contraction of said body member,

wherein said body member outer surface and said gripping surface are configured and positionable relative to each other to form a compressive contact with each other to linearly shift relative to each other under the compressive contact to cause an increased compression between the clamping surface and the object when said body member is circumferentially expanded from an unloaded state,

wherein said first end of said body member includes a plurality of driving surfaces, said plurality of driving surfaces constructed and arranged to cooperate with a driving tool for providing rotational force to said body member.

Claim 10. (Original) The linear engaging fastener system of claim 9 wherein said plurality of driving surfaces are adapted to cooperate with a hex-shaped tool.

Claims 11-26. (Cancelled)

Claim 27. (Previously Presented) A fastener comprising:

a body member defining a longitudinal axis and comprising a clamping end adapted to engage an object to be fastened, and an expandable portion radially expandable relative to the longitudinal axis, the expandable portion having an inner surface defining a cavity in the body member and an outer surface;

an expander member having an outer surface and sized to be at least partially positionable inside the cavity of the body member; and

a machinery component comprising a gripping surface defining a cavity sized to accommodate at least a portion of the expandable portion of the body member and to engage the outer surface of the body member,

wherein the outer surface of the expander member and the inner surface of the expandable portion of the body member are configured to cooperate to radially expand the expandable portion when the expander member axially slides along the longitudinal axis, and wherein the outer surface of the expandable portion of the body member and the gripping surface are configured to cooperate to push the body member along the longitudinal axis relative to the gripping surface, thereby compressively engaging the clamping end with the object to be fastened, as the expandable portion radially expands,

wherein at least one of the outer surface of the expander member and the inner surface of the expandable portion of the body member has a portion at an angle from the longitudinal axis and adapted to remain in contact with the other one of the outer surface of the expander member and the inner surface of the expandable portion of the body member during the longitudinal advancement of the expander member

wherein at least one of the outer surface of the expandable portion of the body member and the gripping surface has a portion at an angle from the longitudinal axis and adapted to remain in contact with the other one of the outer surface of the expandable portion of the body member and the gripping surface during the radial expansion of the expandable portion of the body member, wherein the outer surface of the expandable portion of the body member and the gripping surface comprise matching ribbed surfaces.

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Claim 28. (Previously Presented) The fastener of claim 27, wherein the matching ribbed surfaces comprise matching threaded surfaces.